

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-004571**Date Inspected:** 10-Nov-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sun Wei**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower & OBG**Summary of Items Observed:**

The Caltrans (CT) Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

OBG Bay 1:

The QA Inspector randomly observed 4 ZPMC welders ID Numbers 059416/059378 and 059361/062265, utilizing the Gas Metal Arc Welding (GMAW) Process in 2G/2F Positions on Gantry 1 with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2342-U1(U-Rib)-4, to weld the U-Ribs to Deck Plate DP178-001 Location(9CW), at Weld Joint (WJ) Numbers 003/004 and 007/008. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 375/384 amps, 30.4/30.2 volts (003/004) and 360/368 amps, 29.7/30.7 volts with a travel speed of 525 millimeters (mm) per minute. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welders Dong Yiqun ID 059450 and Jiang Mao Fang ID 067942, utilizing the Flux Cored Arc Welding (FCAW) Process in 3F Position with ZPMC WPS WPS-B-T-2133, to weld 8mm diaphragms to the U-Ribs for Deck Plate DP396-001. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

OBG Bay 2:

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The QA Inspector randomly observed 6 Magnetic Drill Operators drilling bolt holes in Longitudinal Stiffeners piece marks A571(S), A572(S), A573(S) and A576(S).

OBG Bay 3:

The QA Inspector randomly observed ZPMC welders Li Zhao Qian ID 004810 and Wei Da shuai ID 051246 on Gantry 1, utilizing the FCAW Process in the 2F Position with ZPMC WPS WPS-B-T-2232-3, to weld the Side Plate SP487-001 at WJ SP487-001-016/015 and 024/023. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

OBG Bay 4:

The QA Inspector performed a 10% final Visual (VT) and MT verification on the cover pass of the fillet welds on 9M (W) Single Diaphragm WJ's WSD1-SA78-106(2G) and 107(2F) attaching the Flange Plate Assembly to the diaphragm. The fillet welds attaching I-Beams and angle to the diaphragm had been accepted previously by QA and QC. There appeared to be no indications and the QA Inspector accepted WJ's WSDI-SA78-106/107. The QA Inspector randomly observed ABF Representative Zhanh Hui Pong attach Green Tag 001542 to the part.

The QA Inspector verified that a final Visual (VT) and MT QC Inspection and QA verifications on the cover pass of the fillet welds on 9M (S) Single Diaphragm SA20, attaching the Flange Plate Assembly to the diaphragm and the fillet welds attaching I-Beams and angle to the diaphragm. The QA Inspector randomly observed ABF Representative Zhanh Hui Pong attach Green Tag 001543 to the part. The attached photograph provides additional detail.



Summary of Conversations:

As noted in the above body of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Joshua Ishibashi, 13764710411, who represents the Office of Structural Materials

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for your project.

Inspected By: Franco,Charlie

Quality Assurance Inspector

Reviewed By: Wright,Mark

QA Reviewer